

OFETS WITH ACTIVE CHANNELS FORMED OF DENSIFIED LAYERS

ABSTRACT OF THE DISCLOSURE

The present invention provides apparatus and a method of fabricating the apparatus. The apparatus includes a substrate having a surface and an organic field-effect transistor (OFET) located adjacent the surface of the substrate. The OFET comprising a gate, a channel, a source electrode, and a drain electrode. The channel comprises a densified layer of organic molecules with conjugated multiple bonds, axes of the organic molecules being oriented substantially normal to the surface.